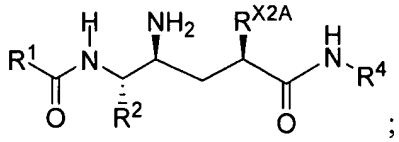
AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-7 **(Canceled)**

8. **(Currently Amended)** An isolated compound having the structure:



;

or pharmaceutically acceptable derivative thereof;

wherein $\mathbf{R^1}$ is an aliphatic, heteroaliphatic, aromatic or heteroaromatic moiety, or R^1, taken together with R′, may form a cycloheteroaliphatic moiety;

$\mathbf{R^2}$ is an aliphatic, heteroaliphatic, aromatic or heteroaromatic moiety, or R^2, taken together with R', may form a cycloheteroaliphatic moiety;

$\mathbf{R^4}$ is hydrogen, an aliphatic, heteroaliphatic, aromatic or heteroaromatic moiety, or R^4, taken together with a substituent present on X^2 or X^3, may form a cycloaliphatic, cycloheteroaliphatic, aromatic, or heteroaromatic moiety; and

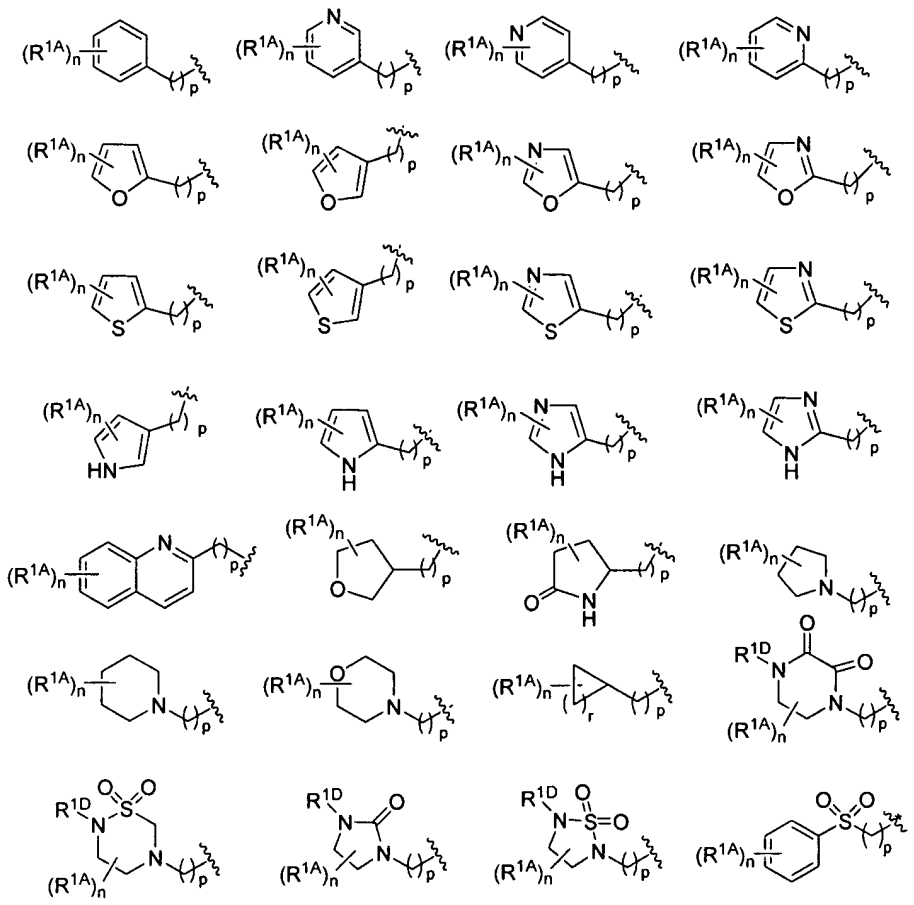
$\mathbf{R^{X2A}}$ is hydrogen or an aliphatic, heteroaliphatic, aryl, heteroaryl, -(alkyl)aryl, -(alkyl)heteroaryl, -(heteroalkyl)aryl, or –(heteroalkyl)heteroaryl moiety;

wherein at least one of R^1, R^2, R^{X2A} and R^4 comprises a cycloheteroaliphatic or heteroaromatic moiety.

9. **(Original)** The compound of claim 8, wherein R^{X2A} is a substituted or unsubstituted, linear or branched lower alkyl moiety.

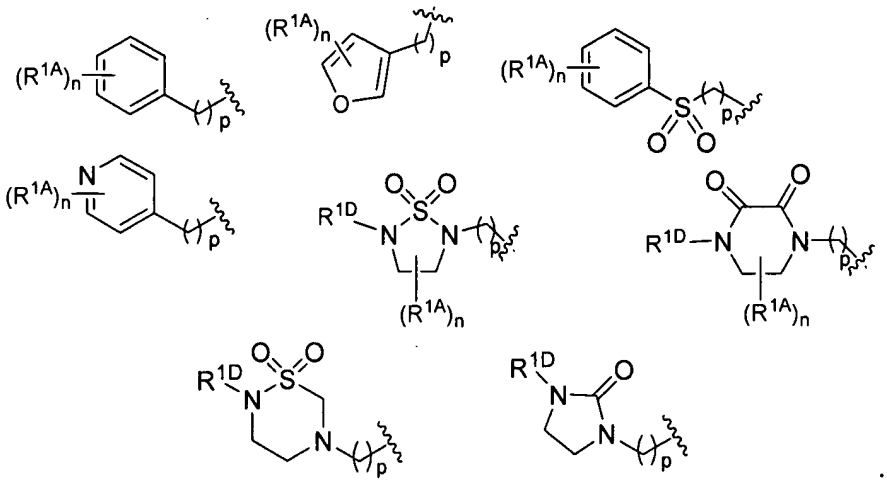
10. **(Previously Presented)** The compound of claim 9, wherein R^{X2A} is methyl, ethyl, propyl, isopropyl or phenethyl.

11. **(Previously Presented)** The compound of claim 8, wherein R^1 has one of the following structures:

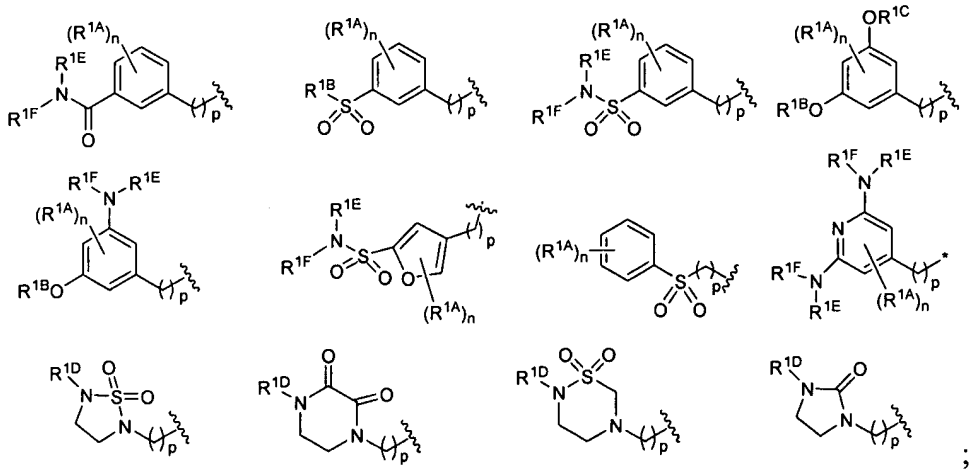


wherein R^{1A} is hydrogen, alkyl, heteroalkyl, aryl, heteroaryl, -(alkyl)aryl, -(alkyl)heteroaryl, $-OR^{1B}$, $-SR^{1B}$, $-N(R^{1B})_2$, $-SO_2N(R^{1B})_2$, $-C(=O)N(R^{1B})_2$, halogen, -CN, $-NO_2$, $-C(=O)OR^{1B}$, $N(R^{1B})C(=O)R^{1C}$ or $-N(R^{1B})SO_2R^{1C}$; wherein each occcurrence of R^{1B} and R^{1C} is independently hydrogen, lower alkyl, lower heteroalkyl, aryl, heteroaryl, -(alkyl)aryl, -(alkyl)heteroaryl; or R^{1B} and R^{1C}, taken together with the atoms to which they are attached, form a substituted or unsubstituted heterocyclic moiety; R^{1D} is hydrogen, alkyl, heteroalkyl, aryl, heteroaryl, -(alkyl)aryl, -(alkyl)heteroaryl, acyl or a nitrogen protecting group; wherein n and p are each independently integers from 0 to 3 and r is an integer from 1 to 6; whereby each of the foregoing alkyl and heteroalkyl moieties may be linear or branched, substituted or unsubstituted, cyclic or acylic, and each of the foregoing aryl, heteroaryl, -(alkyl)aryl and -(alkyl)heteroaryl moieties may be substituted or unsusbtituted.

12. **(Original)** The compound of claim 11, wherein R^1 has one of the following structures:



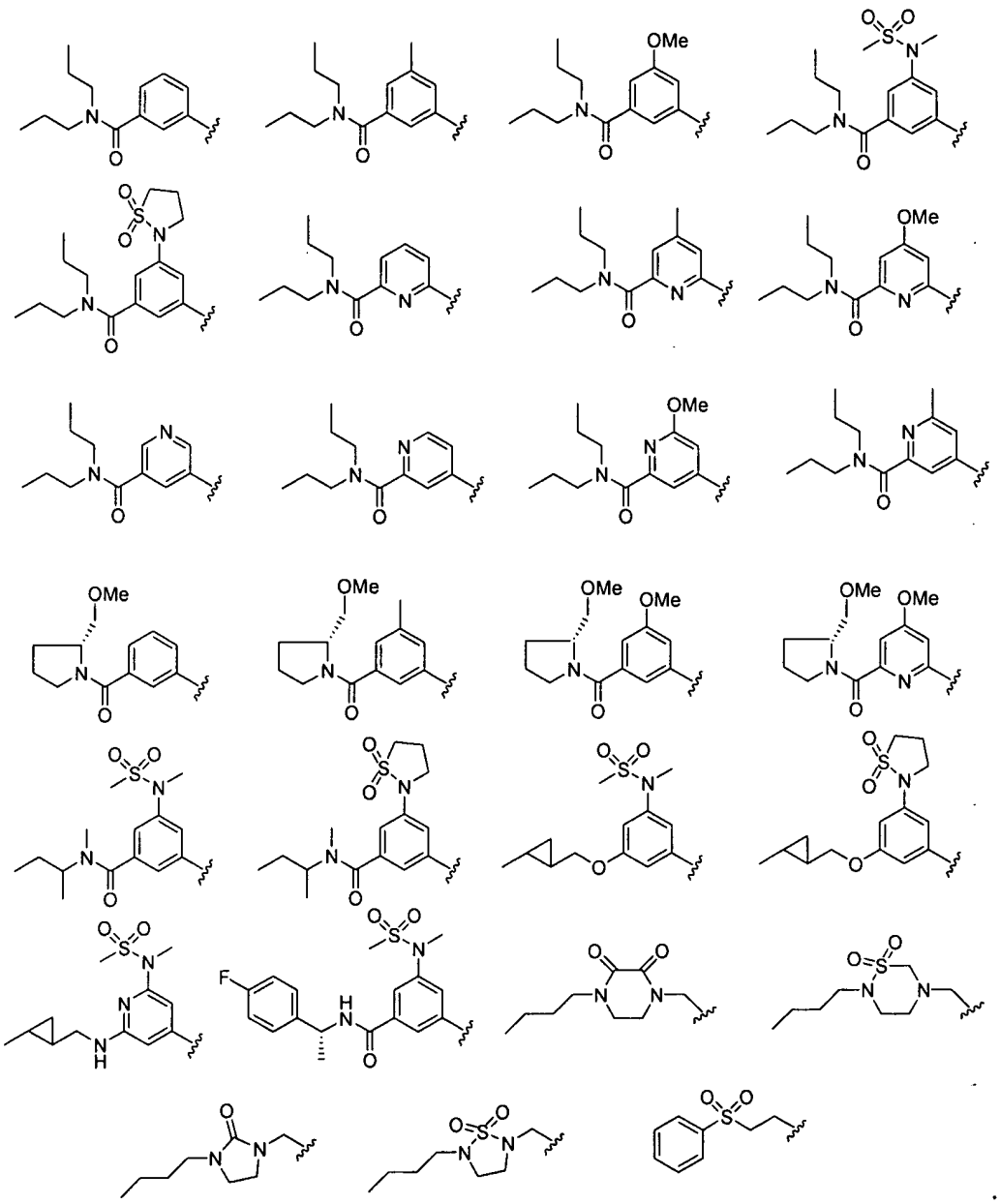
13. **(Original)** The compound of claim 11, wherein R^1 has one of the following structures:



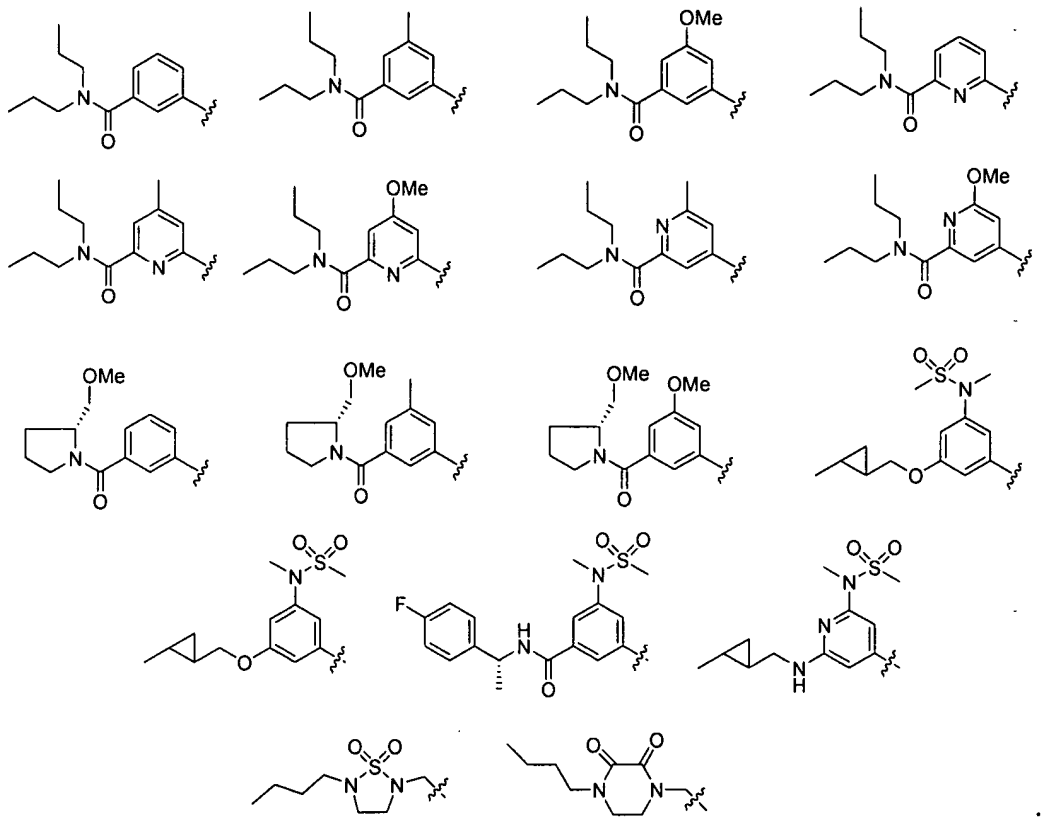
;

wherein R^{1D} is hydrogen, lower alkyl, lower heteroalkyl, aryl, heteroaryl, -(alkyl)aryl; -(alkyl)heteroaryl or acyl; R^{1E} and R^{1F} are each independently hydrogen, lower alkyl, lower heteroalkyl, aryl, heteroaryl, -(alkyl)aryl, -(alkyl)heteroaryl, $-C(=O)R^{1C}$ or $-SO_2R^{1C}$, where R^{1C} is hydrogen, lower alkyl, lower heteroalkyl, aryl, heteroaryl, -(alkyl)aryl or -(alkyl)heteroaryl; or R^{1E} and R^{1F} taken together form a 5-8 membered heterocyclic ring; or R^{1E} and one occurrence of R^{1A}, taken together, form a substituted or unsubstituted, saturated or unsaturated heterocyclic ring.

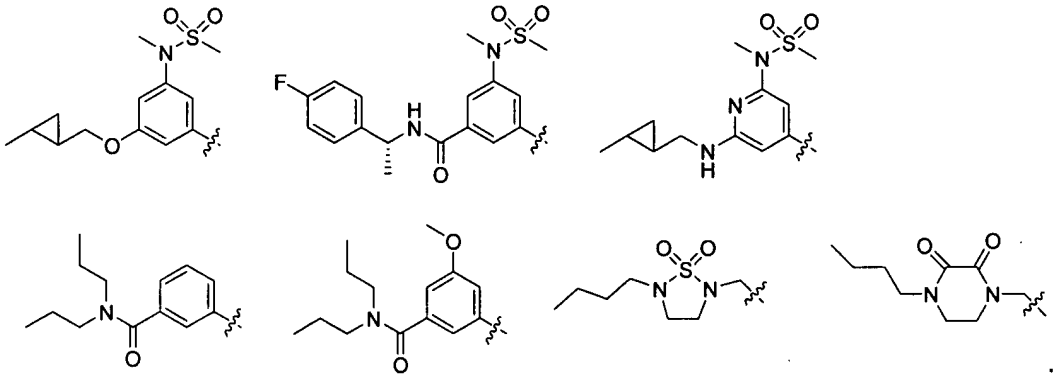
14. **(Original)** The compound of claim 11, wherein R^1 has one of the following structures:



15. **(Original)** The compound of claim 11, wherein R^1 has one of the following structures:



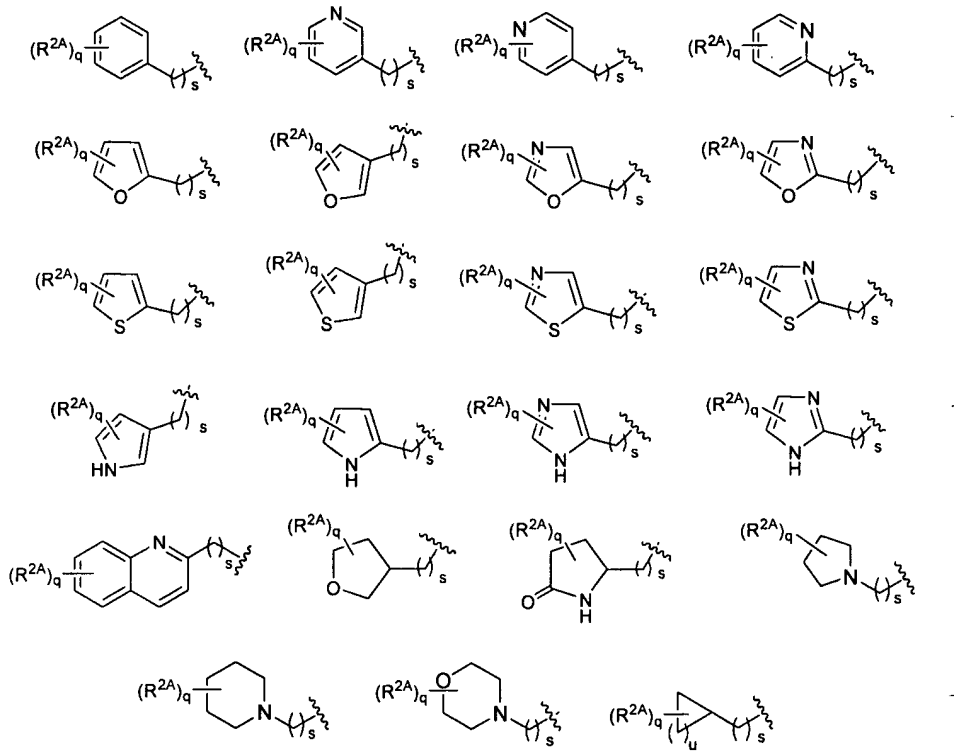
16. **(Original)** The compound of claim 11, wherein R^1 has one of the following structures:



17. **(Previously Presented)** The compound of claim 8, wherein R^2 is lower alkyl, -$CH_2NR^{2A}R^{2B}$ or –(CH_2)phenyl, wherein the phenyl group is optionally substituted with one or more occurrences of R^{2C}, wherein R^{2C} is hydrogen, alkyl, alkoxy or halogen; and wherein R^{2A} and R^{2B} are each independently hydrogen, lower alkyl, lower heteroalkyl, aryl, heteroaryl, -(alkyl)aryl or -(alkyl)heteroaryl; whereby each of the foregoing alkyl and heteroalkyl moieties

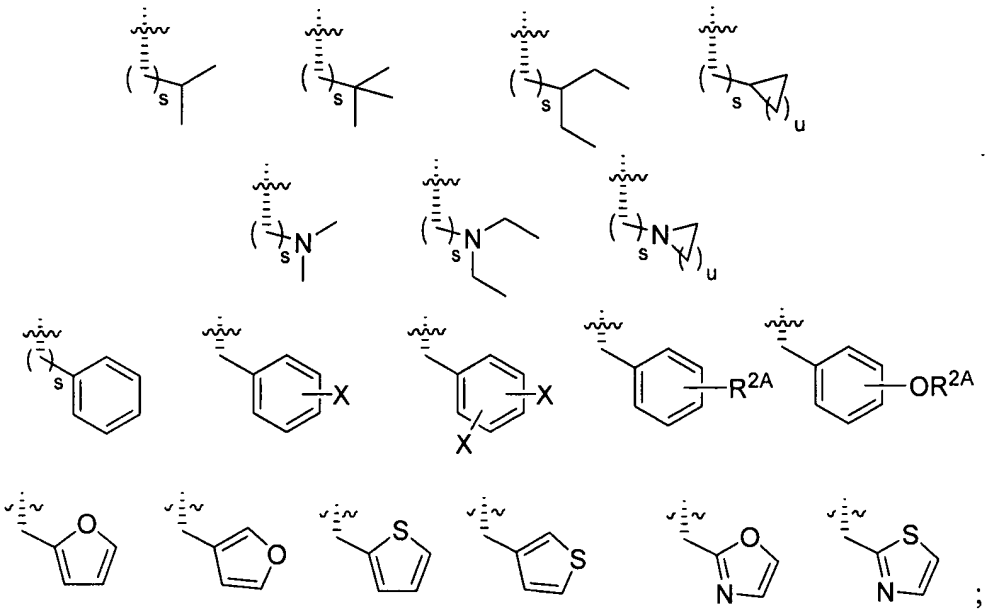
may be linear or branched, substituted or unsubstituted, cyclic or acylic, and each of the foregoing aryl, heteroaryl, -(alkyl)aryl and -(alkyl)heteroaryl moieties may be substituted or unsusbtituted.

18. **(Original)** The compound of claim 17, wherein R^2 has one of the following structures:



wherein R^{2A} is hydrogen, alkyl, heteroalkyl, aryl, heteroaryl, -(alkyl)aryl or -(alkyl)heteroaryl, $-OR^{2B}$, $-SR^{2B}$, $-N(R^{2B})_2$, $-SO_2N(R^{2B})_2$, $-C(=O)N(R^{2B})_2$, halogen, -CN, $-NO_2$, $-C(=O)OR^{2B}$, $-N(R^{2B})C(=O)R^{2C}$, wherein each occcurrence of R^{2B} and R^{2C} is independently hydrogen, lower alkyl, lower heteroalkyl, aryl, heteroaryl, -(alkyl)aryl or -(alkyl)heteroaryl, wherein q and s are each independently integers from 0 to 3 and u is an integer from 1 to 6; whereby each of the foregoing alkyl and heteroalkyl moieties may be linear or branched, substituted or unsubstituted, cyclic or acylic, and each of the foregoing aryl, heteroaryl, -(alkyl)aryl and -(alkyl)heteroaryl moieties may be substituted or unsusbtituted.

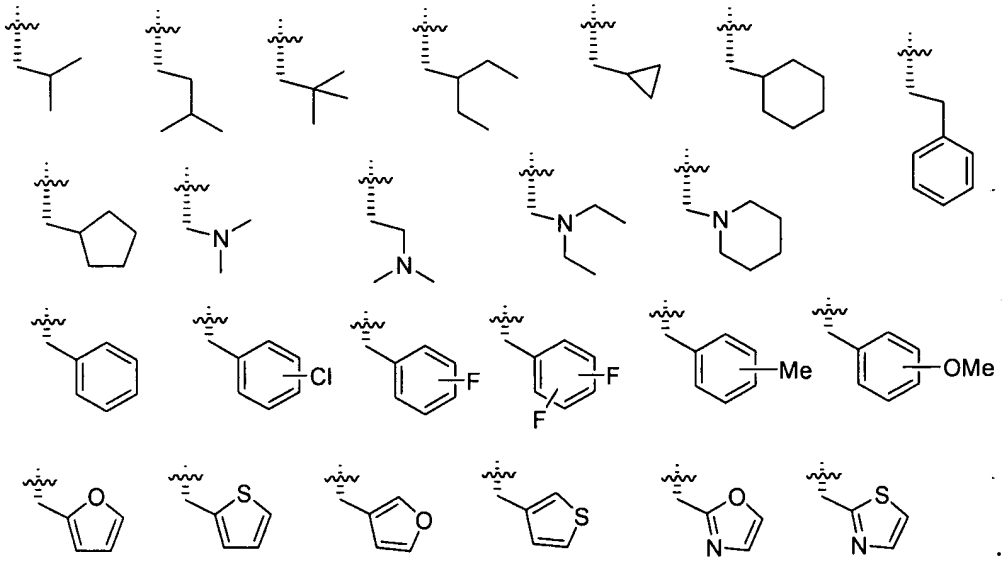
19. **(Original)** The compound of claim 17, wherein R^2 has one of the following structures:



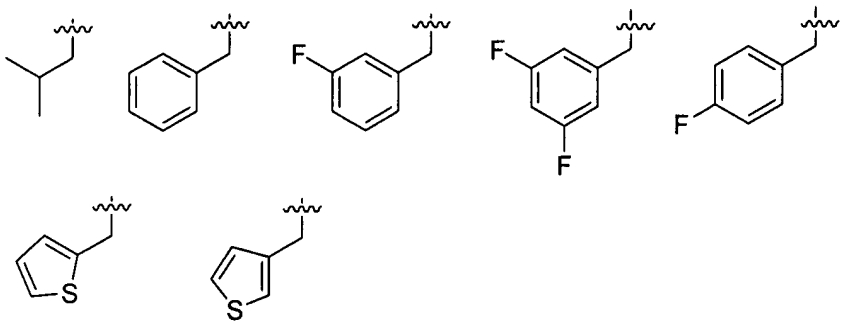
wherein each occcurrence of R^{2A} is independently hydrogen or lower alkyl; each occurrence of X is independently a halogen; s is an integer from 0 to 3 and u is an integer from 1 to 6; whereby each of the foregoing alkyl moieties may be linear or branched, substituted or unsubstituted and cyclic or acylic.

20. **(Original)** The compound of claim 17, wherein each occurrence of X is independenly chlorine or fluorine and R^{2A} is methyl.

21. **(Original)** The compound of claim 17, wherein R^2 has one of the following structures:



22. **(Original)** The compound of claim 17, wherein R^2 has one of the following structures:

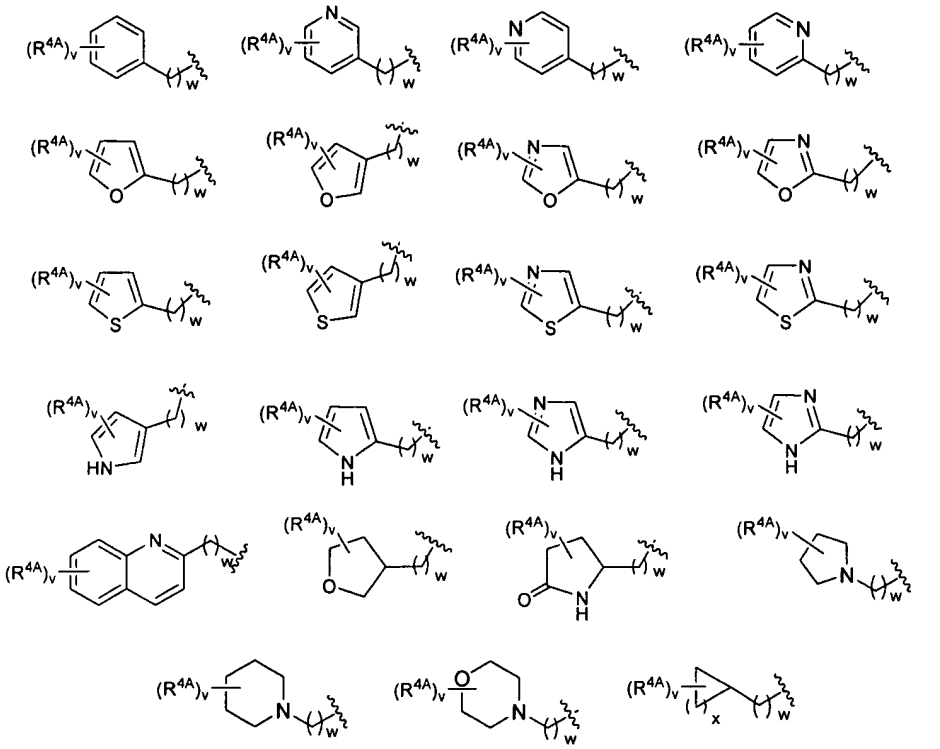


23. **(Canceled)**

24. **(Previously Presented)** The compound of claim 8, wherein R^4 is substituted or unsubstituted, linear or branched, cyclic or acyclic alkyl, phenyl or $-(CH_2)$phenyl, wherein the phenyl group is optionally substituted with one or more occurrences of R^{4A}, wherein R^{4A} is hydrogen, alkyl, heteroalkyl, aryl, heteroaryl, -(alkyl)aryl or -(alkyl)heteroaryl, $-OR^{4B}$, $-SR^{4B}$, $-N(R^{4B})_2$, $-SO_2N(R^{4B})_2$, $-C(=O)N(R^{4B})_2$, halogen, -CN, $-NO_2$, $-C(=O)OR^{4B}$, $-N(R^{4B})C(=O)R^{4C}$, wherein each occcurrence of R^{4B} and R^{4C} is independently hydrogen, lower alkyl, lower heteroalkyl, aryl, heteroaryl, -(alkyl)aryl, -(alkyl)heteroaryl, -(heteroalkyl)aryl, -(heteroalkyl)heteroaryl.

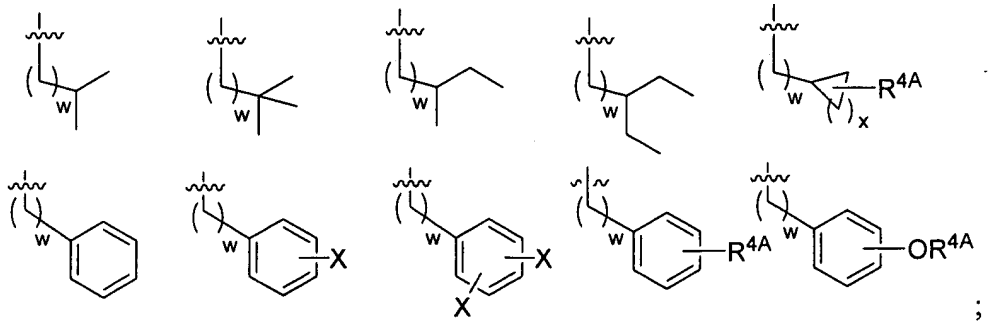
25. **(Original)** The compound of claim 24, wherein R^4 is substituted or unsubstituted, linear or branched, cyclic or acyclic alkyl, phenyl or $-(CH_2)$phenyl, wherein the phenyl group is optionally substituted with one or more occurrences of R^{4A}, wherein R^{4A} is hydrogen, hydroxyl, alkyl, alkoxy or halogen.

26. **(Original)** The compound of claim 24, wherein R^4 has one of the following structures:



wherein each occurrence of R^{4A} is independently hydrogen, alkyl, heteroalkyl, aryl, heteroaryl, -(alkyl)aryl or -(alkyl)heteroaryl, $-OR^{4B}$, $-SR^{4B}$, $-N(R^{4B})_2$, $-SO_2N(R^{4B})_2$, $-C(=O)N(R^{4B})_2$, halogen, -CN, $-NO_2$, $-C(=O)OR^{4B}$, $-N(R^{4B})C(=O)R^{4C}$, wherein each occcurrence of R^{4B} and R^{4C} is independently hydrogen, lower alkyl, lower heteroalkyl, aryl, heteroaryl, -(alkyl)aryl or -(alkyl)heteroaryl, wherein v and w are each independently integers from 0 to 3 and x is an integer from 1 to 6; whereby each of the foregoing alkyl and heteroalkyl moieties may be linear or branched, substituted or unsubstituted, cyclic or acylic, and each of the foregoing aryl, heteroaryl, -(alkyl)aryl and -(alkyl)heteroaryl moieties may be substituted or unsusbtituted.

27. **(Original)** The compound of claim 24, wherein R^4 is methyl, ethyl, propyl or one of:

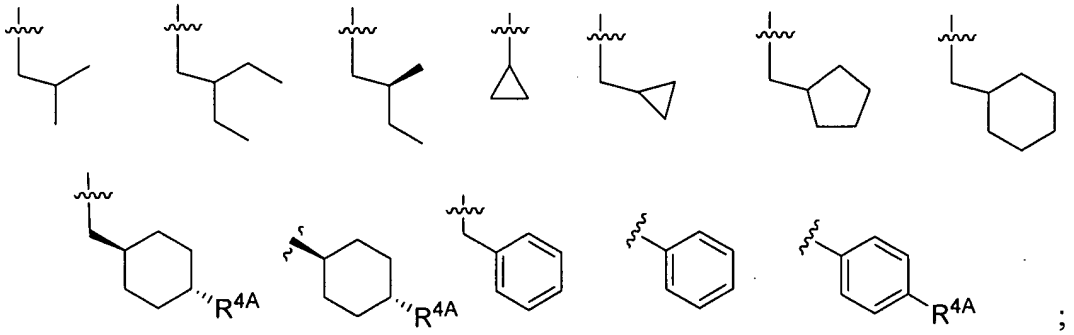


;

wherein each occcurrence of R^{4A} is independently hydrogen, lower alkyl or $C(=O)OR^{4B}$, wherein R^{4B} is hydrogen, lower alkyl, lower heteroalkyl, aryl, heteroaryl, -(alkyl)aryl or -(alkyl)heteroaryl; each occurrence of X is independently a halogen; w is an integer from 0 to 3 and x is an integer from 1 to 6; whereby each of the foregoing alkyl and heteroalkyl moieties may be linear or branched, substituted or unsubstituted, cyclic or acylic, and each of the foregoing aryl, heteroaryl, -(alkyl)aryl and -(alkyl)heteroaryl moieties may be substituted or unsusbtituted.

28. **(Original)** The compound of claim 27, wherein each occurrence of X is independenly chlorine or fluorine and R^{4A} is methyl.

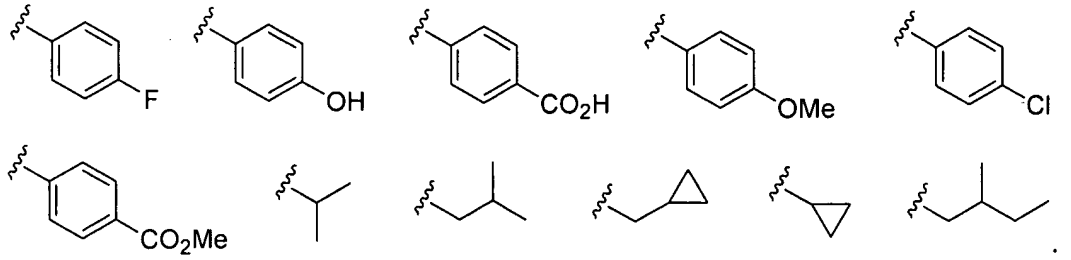
29. **(Original)** The compound of claim 24, wherein R^4 is methyl, ethyl, propyl or one of:



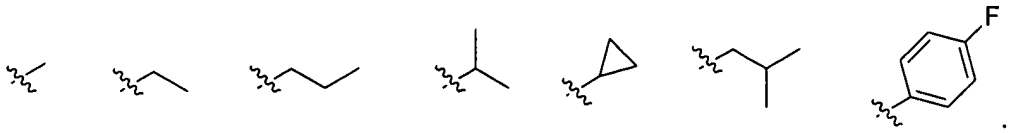
;

wherein R^{4A} is hydrogen, hydroxyl, lower alkyl, lower alkoxy, halogen, $C(=O)OR^{4B}$, aryl, heteroaryl, -(alkyl)aryl or -(alkyl)heteroaryl, wherein R^{4B} is hydrogen, lower alkyl, lower heteroalkyl, aryl, heteoraryl, -(alkyl)aryl, -(alkyl)heteroaryl, -(heteroalkyl)aryl or –(heteroalkyl)heteroaryl.

30. **(Original)** The compound of claim 24, wherein R^4 is methyl, ethyl, propyl, isopropyl or one of:



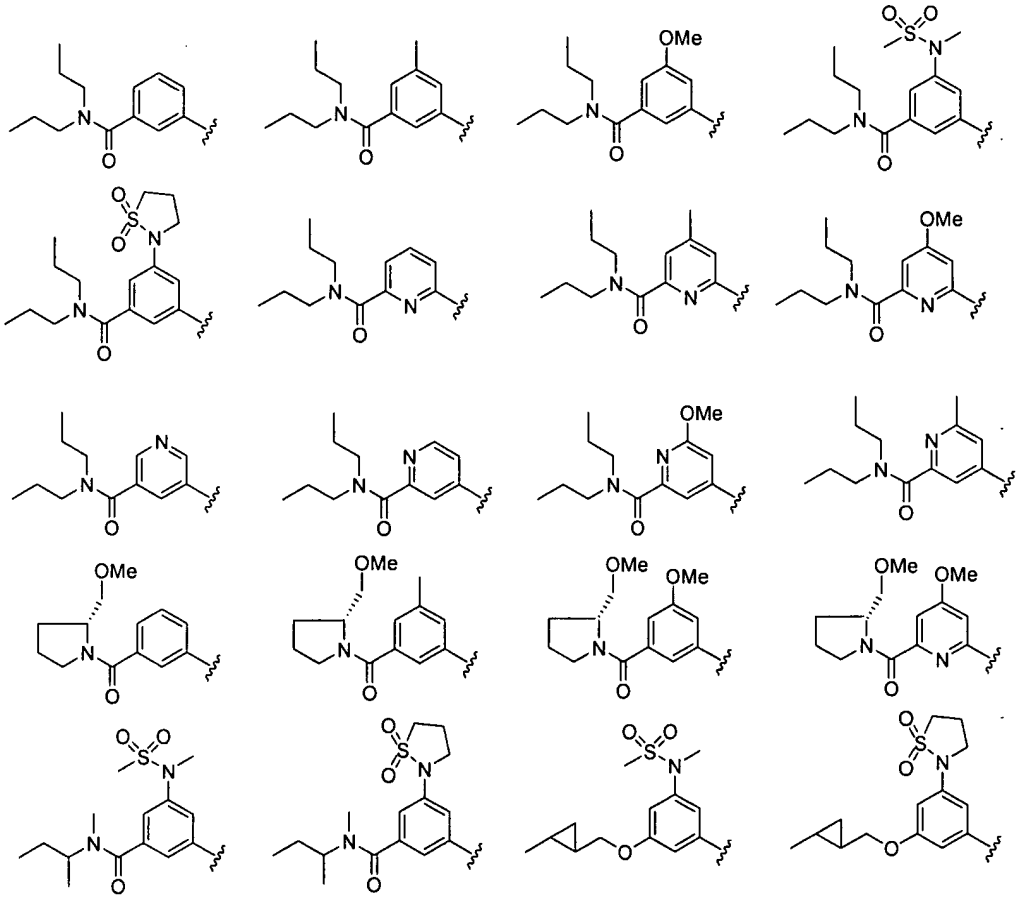
31. **(Original)** The compound of claim 24, wherein R^4 has one of the following structures:

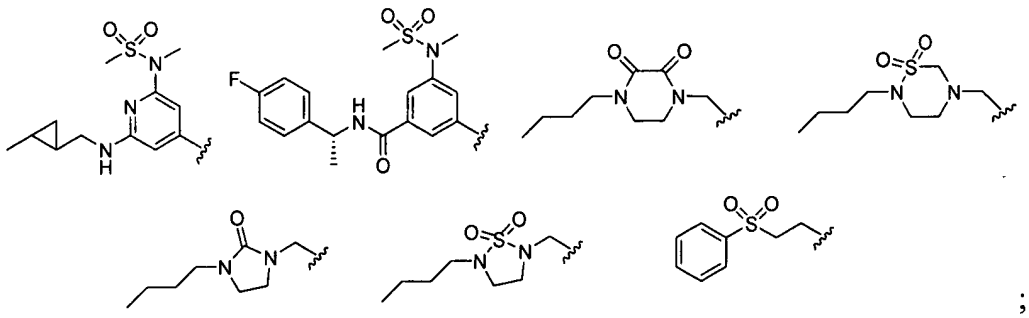


Claims 32-37 **(Canceled)**

38. **(New)** The compound of claim 8, wherein:

R^1 has one of the following structures:





;

R^2 is lower alkyl, $-CH_2NR^{2A}R^{2B}$ or $-(CH_2)$phenyl, wherein the phenyl group is optionally substituted with one or more occurrences of R^{2C}, wherein R^{2C} is hydrogen, alkyl, alkoxy or halogen; and wherein R^{2A} and R^{2B} are each independently hydrogen, lower alkyl, lower heteroalkyl, aryl, heteroaryl, -(alkyl)aryl or -(alkyl)heteroaryl; whereby each of the foregoing alkyl and heteroalkyl moieties may be linear or branched, substituted or unsubstituted, cyclic or acylic, and each of the foregoing aryl, heteroaryl, -(alkyl)aryl and -(alkyl)heteroaryl moieties may be substituted or unsusbtituted;

R^4 is substituted or unsubstituted, linear or branched, cyclic or acyclic alkyl, phenyl or $-(CH_2)$phenyl, wherein the phenyl group is optionally substituted with one or more occurrences of R^{4A}, wherein R^{4A} is hydrogen, hydroxyl, alkyl, alkoxy or halogen; and

R^{X2A} is a substituted or unsubstituted, linear or branched lower alkyl moiety.

39. **(New)** A pharmaceutical composition comprising a compound of claim 8, and a pharmaceutically acceptable carrier or diluent, optionally further comprising an additional therapeutic agent.

40. **(New)** The pharmaceutical composition of claim 39, wherein the compound is present in an amount effective to inhibit β-secretase activity.

41. **(New)** The pharmaceutical composition of claim 39, wherein the additional therapeutic agent is an agent for the treatment of Alzheimer's Disease.

42. **(New)** A method for inhibiting β-secretase activity in a biological sample, comprising contacting said biological sample with an effective inhibitory amount of a compound of claim 8.

43. **(New)** A method for treating a disease characterized by β-amyloid deposits in the brain comprising administering to a patient a therapeutically effective amount of a compound of claim 8.

44. **(New)** The method of claim 43, wherein the disease is Alzheimer's disease MCI (mild cognitive impairment), Down's syndrome, Hereditary Cerebral Hemmorhage with Amyloidosis of the Dutch-Type, cerebral amyloid angiopathy, other degenerative dementias, including dementias of mixed vascular and degenerative origin, dementia associated with Parkinson's disease, dementia associated with progressive supranuclear palsy, dementia associated with cortical basal degeneration, and diffuse Lewy body type Alzheimer's disease.